WHAT IS CLAIMED IS:

1. A method of reducing the amount of peroxides in low sulfur, middle distillate fuels comprising the steps of:

providing a middle distillate fuel having a sulfur content of about 50 ppm or less;

combining the fuel with an organic nitrate combustion improver;

wherein the amount of organic nitrate combustion improver combined with the fuel reduces the amount of peroxides in the fuel as compared with a middle distillate fuel without the organic nitrate combustion improver.

2. A method as described in claim 1, wherein the organic nitrate combustion improver comprises 2-ethylhexyl nitrate.

3. A method as described in claim 2, wherein the 2-ethylhexyl nitrate is combined in an amount of from about 100 to 5000 ppm wt. of the fuel.

4. A method as described in claim 3, wherein the 2-ethylhexyl nitrate is combined in an amount of about 2500 ppm wt. of the fuel.

5. A method as described in claim 1, wherein the middle distillate fuel is selected from the group consisting of diesel fuel, biodiesel fuel, burner fuel, kerosene, gas oil, jet fuel, and gas turbine engine fuel.

6. A method as described in claim 1, wherein the fuel has a sulfur content of about 20 ppm or less.

7. A method as described in claim 1, wherein the fuel has a sulfur content of about 10 ppm or less.

8. A method as described in claim 1, wherein the fuel further comprises one or more components selected from the group consisting of: corrosion inhibitors, antioxidants, anti-rust agents, detergents and dispersants, fuel lubricity additives, demulsifiers, dyes, inert diluents, cold flow improvers, conductivity agents, metal deactivators, stabilizers, antifoam additives, de-icers, biocides, odorants, drag reducers, combustion improvers, MMT, and oxygenates.

9. A method of enhancing the durability of middle distillate fuel system elastomers comprising the steps of:

providing a middle distillate fuel having a sulfur content of about 50 ppm or less;

combining the fuel with an organic nitrate combustion improver;

wherein the amount of organic nitrate combustion improver combined with the fuel enhances the durability of middle distillate fuel system elastomers as compared with the durability of elastomers in a middle distillate fuel system combusting a middle distillate fuel without the organic nitrate combustion improver.

10. A method as described in claim 9, wherein the organic nitrate combustion improver comprises 2-ethylhexyl nitrate.

11. A method as described in claim 10, wherein the 2-ethylhexyl nitrate is combined in an amount of from about 100 to 5000 ppm wt. of the fuel.

12. A method as described in claim 10, wherein the 2-ethylhexyl nitrate is combined in an amount of about to 2500 ppm wt. of the fuel.

13. A method as described in claim 9, wherein the middle distillate fuel is selected from the group consisting of diesel fuel, biodiesel fuel, burner fuels, kerosene, gas oil, jet fuel, and gas turbine engine fuel.

14. A method as described in claim 9, wherein the fuel has a sulfur content of about 20 ppm or less.

15. A method as described in claim 9, wherein the fuel has a sulfur content of about 10 ppm or less.

16. A method as described in claim 9, wherein the fuel further comprises at least one component selected from the group consisting of corrosion inhibitors, antioxidants, anti-rust agents, detergents and dispersants, fuel lubricity additives, demulsifiers, dyes, inert diluents, cold flow improvers, conductivity agents, metal deactivators, stabilizers, antifoam additives, de-icers, biocides, odorants, drag reducers, combustion improvers, MMT, and oxygenates.

17. A method as described in claim 1, wherein the amount of peroxides in the fuel is less than about 8 ppm.

18. A method as described in claim 9, wherein the amount of peroxides in the fuel is less than about 8 ppm.

19. A method as described in claim 9, wherein the durability of the elastomers is enhanced by up to 25% as measured by miles driven, gallons of fuel combusted or days/years of service, relative to the durability of elastomers in a middle distillate fuel system combusting fuel without an organic nitrate combustion improver.

20. In a middle distillate fuel combustion system comprising one or more elastomers susceptible to degradation by exposure to peroxides, the improvement in elastomer durability obtained by including in the fuel combusted in said system an amount of organic nitrate combustion improver sufficient to produce an amount of peroxides therein of less than about 8 parts per million in the fuel.

21. A method of enhancing the color durability of a middle distillate fuel comprising the steps of:

providing a middle distillate fuel having a sulfur content of about 50 ppm or less;

combining the fuel with an organic nitrate combustion improver;

wherein the amount of organic nitrate combustion improver combined with the fuel enhances the color durability of said middle distillate fuel compared with the color durability of a middle distillate fuel without the organic nitrate combustion improver.

22. A method as described in claim 21, wherein the organic nitrate combustion improver comprises 2-ethylhexyl nitrate.

23. A method as described in claim 22, wherein the 2-ethylhexyl nitrate is combined in an amount of from about 100 to 5000 ppm wt. of the fuel.

24. A method as described in claim 22, wherein the 2-ethylhexyl nitrate is combined in an amount of about 2500 ppm wt. of the fuel.

25. A method as described in claim 21, wherein the middle distillate fuel is selected from the group consisting of diesel fuel, biodiesel fuel, burner fuel, kerosene, gas oil, jet fuel, and gas turbine engine fuel.

26. A method as described in claim 21, wherein the fuel has a sulfur content of about 20 ppm or less.

27. A method as described in claim 21, wherein the fuel has a sulfur content of about 10 ppm or less.

28. A method as described in claim 21, wherein the fuel further comprises one or more components from the group consisting of:

corrosion inhibitors, antioxidants, anti-rust agents, detergents and dispersants, fuel lubricity additives, demulsifiers, dyes, inert diluents, cold flow improvers, conductivity agents, metal deactivators, stabilizers, antifoam additives, de-icers, biocides, odorants, drag reducers, combustion improvers, MMT, and oxygenates.

29. A method as described in claim 21, wherein the amount of peroxides in the fuel is less than about 8 ppm.

30. A method as described in claim 21, wherein the fuel color durability is enhanced by up to 25% as measured by miles driven, gallons of fuel combusted or days/years of service, relative to the color durability of fuels without an organic nitrate combustion improver.

31. In a middle distillate fuel combustion system comprising a fuel color susceptible to degradation by exposure to peroxides, the improvement in color durability obtained by including in the fuel combusted in said system an amount of organic nitrate combustion improver sufficient to produce an amount of peroxides therein of less than about 8 parts per million in the fuel.

32. A method of enhancing the fuel stability of a middle distillate fuel comprising the steps of:

providing a middle distillate fuel having a sulfur content of about 50 ppm or less;

combining the fuel with an organic nitrate combustion improver;

wherein the amount of organic nitrate combustion improver combined with the fuel enhances the fuel stability of said middle distillate fuel as compared with the fuel stability of a middle distillate fuel without the organic nitrate combustion improver.

33. A method as described in claim 32, wherein the organic nitrate combustion improver comprises 2-ethylhexyl nitrate.

34. A method as described in claim 33, wherein the 2-ethylhexyl nitrate is combined in an amount of from about 100 to 5000 ppm wt. of the fuel.

35. A method as described in claim 33, wherein the 2-ethylhexyl nitrate is combined in an amount of about 2500 ppm wt. of the fuel.

36. A method as described in claim 32, wherein the middle distillate fuel is selected from the group consisting of diesel fuel, biodiesel fuel, burner fuel, kerosene, gas oil, jet fuel, and gas turbine engine fuel.

37. A method as described in claim 32, wherein the fuel has a sulfur content of about 20 ppm or less.

38. A method as described in claim 32, wherein the fuel has a sulfur content of about 10 ppm or less.

39. A method as described in claim 32, wherein the fuel further comprises one or more components selected from the group consisting of:

corrosion inhibitors, antioxidants, anti-rust agents, detergents and dispersants, fuel lubricity additives, demulsifiers, dyes, inert diluents, cold flow improvers, conductivity agents, metal deactivators, stabilizers, antifoam additives, de-icers, biocides, odorants, drag reducers, combustion improvers, MMT, and oxygenates.

40. A method as described in claim 32, wherein the amount of peroxides in the fuel is less than about 8 ppm.

41. A method as described in claim 32, wherein the fuel stability enhanced by up to 25% as measured by miles driven, gallons of fuel combusted or days/years of service, relative to the fuel stability of fuels without an organic nitrate combustion improver.

42. In a middle distillate fuel having a fuel stability susceptible to degradation by exposure to peroxides, the improvement in fuel stability obtained by including in the fuel an amount of organic nitrate combustion improver sufficient to produce an amount of peroxides therein of less than about 8 parts per million in the fuel.

43. A method of reducing fuel sediment in a middle distillate fuel comprising the steps of:

providing a middle distillate fuel having a sulfur content of about 50 ppm or less;

combining the fuel with an organic nitrate combustion improver;

wherein the amount of organic nitrate combustion improver combined with the fuel reduces fuel sediments in the middle distillate fuel as compared with the fuel sediments in a middle distillate fuel without the organic nitrate combustion improver.

44. A method as described in claim 43, wherein the organic nitrate combustion improver comprises 2-ethylhexyl nitrate.

45. A method as described in claim 44, wherein the 2-ethylhexyl nitrate is combined in an amount of from about 100 to 5000 ppm wt. of the fuel.

46. A method as described in claim 43, wherein the 2-ethylhexyl nitrate is combined in an amount of about 2500 ppm wt. of the fuel.

47. A method as described in claim 43, wherein the middle distillate fuel is selected from the group consisting of diesel fuel, biodiesel fuel, burner fuel, kerosene, gas oil, jet fuel, and gas turbine engine fuel.

48. A method as described in claim 43, wherein the fuel has a sulfur content of about 20 ppm or less.

49. A method as described in claim 43, wherein the fuel has a sulfur content of about 10 ppm or less.

50. A method as described in claim 43, wherein the fuel further comprises one or more components from the group consisting of:

corrosion inhibitors, antioxidants, anti-rust agents, detergents and dispersants, fuel lubricity additives, demulsifiers, dyes, inert diluents, cold flow improvers, conductivity agents, metal deactivators, stabilizers, antifoam additives, de-icers, biocides, odorants, drag reducers, combustion improvers, MMT, and oxygenates.

51. A method as described in claim 43, wherein the amount of peroxides in the fuel is less than about 8 ppm.

52. A method as described in claim 43, wherein the fuel sediment is reduced by up to 25% as measured by miles driven, gallons of fuel combusted or days/years of service, relative to the fuel sediment in a fuel without an organic nitrate combustion improver.

53. In a middle distillate fuel combustion system susceptible to forming fuel sediments by exposure to peroxides, the improvement in reduction in formation of fuel sediments obtained by including in the fuel combusted in said system an amount of organic nitrate combustion improver sufficient to produce an amount of peroxides therein of less than about 8 ppm in the fuel.